Matthias Schreck

List of Publications by Citations

178 papers	4,778 citations	34 h-index	61 g-index
184 ext. papers	5,194 ext. citations	3.8 avg, IF	5.12 L-index

#	Paper	IF	Citations
178	Single photon emission from silicon-vacancy colour centres in chemical vapour deposition nano-diamonds on iridium. *New Journal of Physics*, **2011**, 13, 025012	2.9	297
177	Boron nitride nanomesh: functionality from a corrugated monolayer. *Angewandte Chemie - International Edition*, **2007**, 46, 5115-9	16.4	196
176	One- and two-dimensional photonic crystal microcavities in single crystal diamond. *Nature Nanotechnology*, **2011**, 7, 69-74	28.7	192
175	Optical and structural analysis of ZnCdO layers grown by metalorganic vapor-phase epitaxy. *Applied Physics Letters*, **2003**, 83, 3290-3292	3.4	165
174	Optical signatures of silicon-vacancy spins in diamond. *Nature Communications*, **2014**, 5, 3328	17.4	121
173	Epitaxy of cubic boron nitride on (001)-oriented diamond. *Nature Materials*, **2003**, 2, 312-5	27	118
172	Diamond/Ir/SrTiO3: A material combination for improved heteroepitaxial diamond films. *Applied Physics Letters*, **1999**, 74, 650-652	3.4	107
171	Deterministic coupling of a single silicon-vacancy color center to a photonic crystal cavity in diamond. *Nano Letters*, **2014**, 14, 5281-7	11.5	106
170	Low-temperature investigations of single silicon vacancy colour centres in diamond. *New Journal of Physics*, **2013**, 15, 043005	2.9	106
169	Supramolecular assemblies formed on an epitaxial graphene superstructure. *Angewandte Chemie - International Edition*, **2010**, 49, 1794-9	16.4	104
168	Reentrant superconductivity in Nb/Cu1-xNix bilayers. *Physical Review Letters*, **2006**, 97, 057004	7.4	101
167	Diamond nucleation on iridium buffer layers and subsequent textured growth: A route for the realization of single-crystal diamond films. *Applied Physics Letters*, **2001**, 78, 192-194	3.4	98
166	Ion bombardment induced buried lateral growth: the key mechanism for the synthesis of single crystal diamond wafers. *Scientific Reports*, **2017**, 7, 44462	4.9	95
165	A route to diamond wafers by epitaxial deposition on silicon via iridium/yttria-stabilized zirconia buffer layers. *Applied Physics Letters*, **2004**, 84, 4541-4543	3.4	94
164	Diamond field effect transistors□oncepts and challenges. *Diamond and Related Materials*, **2003**, 12, 391-398	3.5	87
163	Large-area high-quality single crystal diamond. *MRS Bulletin*, **2014**, 39, 504-510	3.2	75
162	Fluorescence and polarization spectroscopy of single silicon vacancy centers in heteroepitaxial nanodiamonds on iridium. *Physical Review B*, **2011**, 84,	3.3	62

161	High growth rate homoepitaxial diamond deposition on off-axis substrates. *Diamond and Related Materials*, **2005**, 14, 266-271	3.5	58
160	Oscillations of the critical temperature in superconducting Nb/Ni bilayers. *Annalen Der Physik*, **2003**, 12, 37-50	2.6	58
159	Raman study of titanium oxide layers produced with plasma immersion ion implantation. *Surface and Coatings Technology*, **2000**, 125, 84-88	4.4	52
158	Epitaxial films of metals from the platinum group (Ir, Rh, Pt and Ru) on YSZ-buffered Si(1 1 1). *Journal of Crystal Growth*, **2009**, 311, 3731-3736	1.6	51
157	Nucleation and Growth of Heteroepitaxial Diamond Films on Silicon. *Physica Status Solidi A*, **1996**, 154, 197-217		51
156	Structural characterization of diamond films grown epitaxially on silicon. *Diamond and Related Materials*, **1994**, 3, 510-514	3.5	51
155	Preparation of 4-inch Ir/YSZ/Si(001) substrates for the large-area deposition of single-crystal diamond. *Diamond and Related Materials*, **2008**, 17, 1035-1038	3.5	48
154	Mosaicity reduction during growth of heteroepitaxial diamond films on iridium buffer layers: Experimental results and numerical simulations. *Journal of Applied Physics*, **2002**, 91, 676-685	2.5	48
153	Efficiency of dislocation density reduction during heteroepitaxial growth of diamond for detector applications. *Applied Physics Letters*, **2013**, 103, 151905	3.4	45
152	High quality single atomic layer deposition of hexagonal boron nitride on single crystalline Rh(111) four-inch wafers. *Review of Scientific Instruments*, **2014**, 85, 035101	1.7	45
151	Diamond detectors for hadron physics research. *Diamond and Related Materials*, **2010**, 19, 358-367	3.5	45
150	How does graphene grow? Easy access to well-ordered graphene films. *Small*, **2009**, 5, 2291-6	11	39
149	Growth rate enhancement by nitrogen in diamond chemical vapor deposition: catalytic effect. *Applied Physics Letters*, **2009**, 94, 224101	3.4	39
148	Limiting processes for diamond epitaxial alignment on silicon. *Physical Review B*, **1998**, 57, 15454-15464	3.3	39
147	Reentrant superconductivity in superconductor/ferromagnetic-alloy bilayers. *Physical Review B*, **2010**, 82,	3.3	38
146	Domain formation in diamond nucleation on iridium. *Diamond and Related Materials*, **2003**, 12, 262-267	3.5	36
145	Growth of epitaxial diamond on silicon via iridium/SrTiO3 buffer layers. *Diamond and Related Materials*, **2005**, 14, 314-317	3.5	35
144	Centimeter-Sized Single-Orientation Monolayer Hexagonal Boron Nitride With or Without Nanovoids. *Nano Letters*, **2018**, 18, 1205-1212	11.5	34

143	Epitaxial growth of hexagonal boron nitride monolayers by a three-step boration-oxidation-nitration process. *Physical Review B*, **2010**, 82,	3.3	33
142	Epitaxial Ir layers on SrTiO 3 as substrates for diamond nucleation: deposition of the films and modification in the CVD environment. *Diamond and Related Materials*, **2000**, 9, 256-261	3.5	32
141	First stages of diamond nucleation on iridium buffer layers. *Diamond and Related Materials*, **2001**, 10, 1617-1621	3.5	32
140	Optical characterization of the cathode plasma sheath during the biasing step for diamond nucleation on silicon. *Diamond and Related Materials*, **1995**, 4, 553-558	3.5	32
139	Epitaxial growth of thin films of perylenetetracar?ylic dianhydride and coronene on NaCl(001). *Thin Solid Films*, **1989**, 175, 89-93	2.2	32
138	Tuned NV emission by in-plane Al-Schottky junctions on hydrogen terminated diamond. *Scientific Reports*, **2014**, 4, 3634	4.9	31
137	Epitaxial growth of graphene on transition metal surfaces: chemical vapor deposition versus liquid phase deposition. *Journal of Physics Condensed Matter*, **2012**, 24, 314204	1.8	30
136	Transmission electron microscopy study of the very early stages of diamond growth on iridium. *Diamond and Related Materials*, **2008**, 17, 1045-1050	3.5	29
135	Reduction of mosaic spread using iridium interlayers: A route to improved oxide heteroepitaxy on silicon. *Applied Physics Letters*, **2007**, 91, 061501	3.4	29
134	Diamond-based electronics for RF applications. *Diamond and Related Materials*, **2004**, 13, 233-240	3.5	29
133	Scalable synthesis of graphene on single crystal Ir(111) films. *Surface Science*, **2012**, 606, 1475-1480	1.8	28
132	Electronic transitions of single silicon vacancy centers in the near-infrared spectral region. *Physical Review B*, **2012**, 85,	3.3	28
131	Comparison of MWPCVD diamond growth at low and high process gas pressures. *Diamond and Related Materials*, **2006**, 15, 542-547	3.5	28
130	Dispersion of surface acoustic waves in polycrystalline diamond plates. *Diamond and Related Materials*, **2001**, 10, 686-692	3.5	28
129	The influence of the growth process on the film texture of epitaxially nucleated diamond on silicon (001). *Diamond and Related Materials*, **1995**, 4, 410-415	3.5	28
128	X-ray imaging of polycrystalline materialsa). *Review of Scientific Instruments*, **1995**, 66, 3560-3562	1.7	26
127	Influence of the nucleation process on the azimuthal misorientation of heteroepitaxial diamond films on Si(001). *Journal of Applied Physics*, **1997**, 81, 3096-3102	2.5	25
126	Limitations of the process window for the bias enhanced nucleation of heteroepitaxial diamond films on silicon in the time domain. *Journal of Applied Physics*, **1997**, 81, 3092-3095	2.5	24

125	Homoepitaxial diamond layers on off-axis Ib HPHT substrates: Growth of thick films and characterisation by high-resolution X-ray diffraction. *Diamond and Related Materials*, **2006**, 15, 472-478	3.5	24
124	Stress distribution in thin heteroepitaxial diamond films on Ir/SrTiO3 studied by x-ray diffraction, Raman spectroscopy, and finite element simulations. *Journal of Applied Physics*, **2000**, 88, 2456-2466	2.5	24
123	Structural defects in homoepitaxial diamond layers grown on off-axis Ib HPHT substrates. *Physica Status Solidi (A) Applications and Materials Science*, **2006**, 203, 3056-3062	1.6	23
122	Field effect transistor fabricated on hydrogen-terminated diamond grown on SrTiO3 substrate and iridium buffer layer. *Diamond and Related Materials*, **2003**, 12, 403-407	3.5	22
121	Deposition of heteroepitaxial diamond films on 2 in silicon substrates. *Diamond and Related Materials*, **1996**, 5, 251-255	3.5	22
120	Toward wafer-scale diamond nano- and quantum technologies. *APL Materials*, **2019**, 7, 011108	5.7	21
119	Epitaxial growth of graphene on Ir(111) by liquid precursor deposition. *Physical Review B*, **2011**, 84,	3.3	21
118	Yttria-stabilized zirconia films of different composition as buffer layers for the deposition of epitaxial diamond/Ir layers on Si(001). *Diamond and Related Materials*, **2006**, 15, 479-485	3.5	21
117	Transmission electron microscopy study of the diamond nucleation layer on iridium. *Diamond and Related Materials*, **2006**, 15, 460-464	3.5	21
116	Growth and properties of CVD diamond films grown under H2S addition. *Diamond and Related Materials*, **2003**, 12, 318-323	3.5	21
115	Lithium addition during CVD diamond growth: influence on the optical emission of the plasma and properties of the films. *Diamond and Related Materials*, **2000**, 9, 1046-1050	3.5	21
114	Correlation between breakdown voltage and structural properties of polycrystalline and heteroepitaxial CVD diamond films. *Diamond and Related Materials*, **1994**, 3, 951-956	3.5	21
113	Propagation and annihilation of threading dislocations during off-axis growth of heteroepitaxial diamond films. *Diamond and Related Materials*, **2016**, 65, 53-58	3.5	20
112	TEM investigations on the heteroepitaxial nucleation of CVD diamond on (001) silicon substrates. *Diamond and Related Materials*, **1997**, 6, 752-757	3.5	20
111	Growth of twin-free heteroepitaxial diamond on Ir/YSZ/Si(111). *Journal of Applied Physics*, **2008**, 104, 123531	2.5	20
110	Boron Nitride Nanomesh: Functionality from a Corrugated Monolayer. *Angewandte Chemie*, **2007**, 119, 5207-5211	3.6	20
109	Analysis of the total carbon deposition during the bias enhanced nucleation of diamond on Ir/SrTiO3 (001) using 13C-methane. *Diamond and Related Materials*, **2002**, 11, 493-498	3.5	20
108	Modification of diamond film growth by a negative bias voltage in microwave plasma chemical vapor deposition. *Diamond and Related Materials*, **1998**, 7, 293-298	3.5	20

107	Multiple role of dislocations in the heteroepitaxial growth of diamond: A brief review. *Physica Status Solidi (A) Applications and Materials Science*, **2016**, 213, 2028-2035	1.6	19
106	Comparative electron diffraction study of the diamond nucleation layer on Ir(001). *Diamond and Related Materials*, **2008**, 17, 1029-1034	3.5	19
105	Interaction of metals with cadmium arachidate Langmuir-Blodgett films studied by X-ray photoelectron spectroscopy. *Thin Solid Films*, **1989**, 175, 95-101	2.2	19
104	Growth mechanism for epitaxial cubic boron nitride films on diamond substrates by ion beam assisted deposition. *Diamond and Related Materials*, **2004**, 13, 1144-1148	3.5	18
103	Orientation dependent sputter yield of aluminium. *Surface and Coatings Technology*, **2002**, 151-152, 72-75	4.4	18
102	HREELS-studies of selectively deuterated cadmium-stearate Langmuir-Blodgett films. *Surface Science*, **1990**, 237, L405-L410	1.8	18
101	Magnetic Nano-skyrmion Lattice Observed in a Si-Wafer-Based Multilayer System. *ACS Nano*, **2015**, 9, 5908-12	16.7	17
100	Growth, stress, and defects of heteroepitaxial diamond on Ir/YSZ/Si(111). *Journal of Applied Physics*, **2018**, 123, 225302	2.5	17
99	STM, SECPM, AFM and Electrochemistry on Single Crystalline Surfaces. *Materials*, **2010**, 3, 4196-4213	3.5	17
98	Growth sector dependence and mechanism of stress formation in epitaxial diamond growth. *Applied Physics Letters*, **2012**, 100, 041906	3.4	17
97	Surface modifications and first stages of heteroepitaxial diamond growth on iridium. *Diamond and Related Materials*, **2004**, 13, 335-341	3.5	17
96	In situ characterisation of CVD diamond growth under H2S addition by optical emission spectroscopy, mass spectroscopy and laser reflection interferometry. *Diamond and Related Materials*, **2002**, 11, 296-300	3.5	17
95	Direct imaging of boron segregation at dislocations in B:diamond heteroepitaxial films. *Nanoscale*, **2016**, 8, 2212-8	7.7	16
94	Epitaxial rhenium buffer layers on Al2O3(0001): a substrate for the deposition of (111)-oriented heteroepitaxial diamond films. *Physica Status Solidi A*, **2003**, 199, 19-26		16
93	Photoconductivity Study of Li Doped Homoepitaxially Grown CVD Diamond. *Physica Status Solidi A*, **2000**, 181, 45-50		16
92	Production yield of rare-earth ions implanted into an optical crystal. *Applied Physics Letters*, **2016**, 108, 053108	3.4	16
91	Site selective growth of heteroepitaxial diamond nanoislands containing single SiV centers. *Applied Physics Letters*, **2016**, 108, 063111	3.4	16
90	Combined AFM/SEM study of the diamond nucleation layer on Ir(001). *Diamond and Related Materials*, **2007**, 16, 665-670	3.5	15

89	Modifying chemical vapor deposited diamond films for field emission displays. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **1998**, 16, 693		15
88	Kinetics of the Thermal Oxidation of Ir(100) toward IrO Studied by Ambient-Pressure X-ray Photoelectron Spectroscopy. *Journal of Physical Chemistry Letters*, **2020**, 11, 3601-3607	6.4	15
87	Correlation between surface morphology and defect structure of heteroepitaxial diamond grown on off-axis substrates. *Physica Status Solidi (A) Applications and Materials Science*, **2014**, 211, 2257-2263	1.6	14
86	In situ boron doping during heteroepitaxial growth of diamond on Ir/YSZ/Si. *Physica Status Solidi (A) Applications and Materials Science*, **2012**, 209, 1643-1650	1.6	14
85	Multimode photoacoustic method for the evaluation of mechanical properties of heteroepitaxial diamond layers. *Journal of Applied Physics*, **2010**, 108, 083524	2.5	14
84	Epitaxial lateral overgrowth (ELO) of homoepitaxial diamond through an iridium mesh. *Diamond and Related Materials*, **2007**, 16, 711-717	3.5	14
83	Healing of graphene on single crystalline Ni(111) films. *Applied Physics Letters*, **2014**, 105, 191612	3.4	13
82	Influence of structural and morphological properties on the intrinsic field emission of CVD diamond films. *Diamond and Related Materials*, **1998**, 7, 666-670	3.5	13
81	Detachment of CVD-grown graphene from single crystalline Ni films by a pure gas phase reaction. *Surface Science*, **2016**, 653, 143-152	1.8	13
80	Progress in detector properties of heteroepitaxial diamond grown by chemical vapor deposition on Ir/YSZ/Si(001) wafers. *Diamond and Related Materials*, **2019**, 97, 107420	3.5	12
79	Incorporation of nitrogen into carbon films produced by PECVD under bias voltage. *Diamond and Related Materials*, **1998**, 7, 899-902	3.5	12
78	High-quality graphene on single crystal Ir(1 1 1) films on Si(1 1 1) wafers: Synthesis and multi-spectroscopic characterization. *Carbon*, **2015**, 81, 167-173	10.4	11
77	Field electron emission enhancement in lithium implanted and annealed nitrogen-incorporated nanocrystalline diamond films. *Applied Physics Letters*, **2017**, 110, 261602	3.4	11
76	Graphene Silicon Layered Structures on Single-Crystalline Ir(111) Thin Films. *Advanced Materials Interfaces*, **2015**, 2, 1400543	4.6	11
75	Quasi-one-dimensional Fulde-Ferrell-Larkin-Ovchinnikov-like state in Nb/Cu0.41Ni0.59 bilayers. *JETP Letters*, **2009**, 90, 139-142	1.2	11
74	Diamond nucleation on iridium: Local variations of structure and density within the BEN layer. *Diamond and Related Materials*, **2009**, 18, 107-112	3.5	11
73	Supramolecular Assemblies Formed on an Epitaxial Graphene Superstructure. *Angewandte Chemie*, **2010**, 122, 1838-1843	3.6	11
72	Structural Properties of the Diamond Nucleation Layer on Iridium Analyzed by Laterally Resolved X-Ray Absorption Spectroscopy. *Japanese Journal of Applied Physics*, **2006**, 45, L984-L986	1.4	11

71	Flat epitaxial diamond/Ir(001) interface visualized by high resolution transmission electron microscopy. *Surface Science*, **2002**, 513, 525-529	1.8	11
70	Dislocation-induced electronic states and point-defect atmospheres evidenced by electron energy loss imaging. *New Journal of Physics*, **2004**, 6, 184-184	2.9	11
69	Field emission mechanism from undoped chemical vapor deposition diamond films. *Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena*, **2000**, 18, 1031		11
68	Charge carrier trapping by dislocations in single crystal diamond. *Journal of Applied Physics*, **2020**, 127, 125102	2.5	10
67	Localization of Narrowband Single Photon Emitters in Nanodiamonds. *ACS Applied Materials & Interfaces*, **2016**, 8, 7590-4	9.5	10
66	Iridium on Biaxially Textured Oxide Templates: A Concept to Grow Single Crystals on Arbitrary Substrates. *Japanese Journal of Applied Physics*, **2008**, 47, 8925-8927	1.4	10
65	TEM analysis of nanometer-size surface structures formed by bias enhanced nucleation of diamond on iridium. *Diamond and Related Materials*, **2003**, 12, 350-355	3.5	10
64	Thermoluminescence characterization of a MWCVD diamond film exposed to □rays and UV radiation. *Physica Status Solidi A*, **2005**, 202, 2206-2211		10
63	Characterization of the near-interface region of chemical vapor deposited diamond films on silicon by backscatter Kikuchi diffraction. *Applied Physics Letters*, **1994**, 65, 1781-1783	3.4	10
62	Interaction of slow electrons with organic films: theoretical and experimental HREELS studies on selectively deuterated molecules. *Surface Science*, **1992**, 262, 128-140	1.8	10
61	Propagation of threading dislocations in heteroepitaxial diamond films with (111) orientation and their role in the formation of intrinsic stress. *Journal of Applied Physics*, **2017**, 121, 225301	2.5	9
60	Growth of zinc oxide nanopillars on an iridium/yttria-stabilized zirconia/silicon substrate. *Applied Physics Letters*, **2007**, 90, 233115	3.4	9
59	Bias assisted growth on diamond single crystals: the defect formation due to ion bombardment studied by ion channelling, electron backscatter diffraction, and micro-Raman spectroscopy. *Diamond and Related Materials*, **2002**, 11, 487-492	3.5	9
58	Pulse-resolved intensity measurements at a hard X-ray FEL using semi-transparent diamond detectors. *Journal of Synchrotron Radiation*, **2018**, 25, 177-188	2.4	9
57	Synthesis and characterization of peapods and DWCNTs. *Physica Status Solidi (B): Basic Research*, **2012**, 249, 2345-2348	1.3	8
56	Diamond mosaic crystals for neutron instrumentation: First experimental results. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2011**, 634, S28-S36	1.2	8
55	Extended defect related energy loss in CVD diamond revealed by spectrum imaging in a dedicated STEM. *Ultramicroscopy*, **2005**, 104, 46-56	3.1	8
54	Damage buildup and removal in Ca-ion-implanted GaN. *Applied Physics A: Materials Science and Processing*, **2000**, 70, 53-57	2.6	8

53	Comparative optical reflection and mass spectrometry analysis of thermodesorption of Langmuir-Blodgett films. *Thin Solid Films*, **1992**, 213, 136-142	2.2	8
52	Structural analysis of diamond mosaic crystals for neutron monochromators using synchrotron radiation. *Diamond and Related Materials*, **2013**, 37, 41-49	3.5	7
51	Interaction between surface structures and threading dislocations during epitaxial diamond growth. *Physica Status Solidi (A) Applications and Materials Science*, **2015**, 212, 2480-2486	1.6	7
50	Yttria-stabilized zirconia buffered silicon to optimize in-plane electrical conductivity of [Ca2CoO3]0.62[CoO2] thin films. *Applied Physics Letters*, **2014**, 104, 183104	3.4	7
49	Exchange bias in reduced dimensions: Cobalt nanocluster arrays under the influence of nanometer thin MnPt capping layers. *Journal of Applied Physics*, **2013**, 113, 123903	2.5	7
48	Epitaxial growth of europium monoxide on diamond. *Applied Physics Letters*, **2013**, 103, 222402	3.4	7
47	Comparison of diamond bias enhanced nucleation on Ir and 3C-SiC: A high resolution electron energy loss spectroscopy study. *Physica Status Solidi (A) Applications and Materials Science*, **2009**, 206, 1972-1977	1.6	7
46	Afterglow and thermally stimulated luminescence induced by UV radiation in CVD diamond. *Physica Status Solidi (A) Applications and Materials Science*, **2007**, 204, 3047-3052	1.6	7
45	Crystal tilting of diamond heteroepitaxially grown on vicinal Ir/SrTiO3(001). *Journal of Applied Physics*, **2004**, 96, 1413-1417	2.5	7
44	Control of Lithium-t-Butoxide Addition during Chemical Vapour Deposition of Li-Doped Diamond Films by Optical Emission Spectroscopy. *Physica Status Solidi A*, **1999**, 174, 65-72		7
43	Oxygen at the interface of CVD diamond films on silicon. *Diamond and Related Materials*, **1999**, 8, 1142-1147	3.5	7
42	Texture analysis of chemical vapor deposited diamond films on silicon by the component method. *Journal of Applied Physics*, **1995**, 77, 4765-4770	2.5	7
41	Indications of non-monotonic texture evolution from a two-dimensional simulation study. *Diamond and Related Materials*, **1995**, 4, 416-418	3.5	7
40	Study of the initial growth phase of chemical vapor deposited diamond on silicon(001) by synchrotron radiation. *Journal of Applied Physics*, **1996**, 79, 1907-1910	2.5	7
39	Thermodesorption of Langmuir-Blodgett films studied by mass spectrometry. *Langmuir*, **1991**, 7, 2287-2292	4	7
38	Microstructural Effect on the Enhancement of Field Electron Emission Properties of Nanocrystalline Diamond Films by Li-Ion Implantation and Annealing Processes. *ACS Omega*, **2018**, 3, 9956-9965	3.9	6
37	Heteroepitaxial Growth **2009**, 125-161		6
36	The nucleation centers formed during bias-enhanced nucleation of diamond on iridium: structure and stability. *Diamond and Related Materials*, **2005**, 14, 328-334	3.5	6

35	Effect of oxygen on the bias-enhanced nucleation of diamond on silicon. *Diamond and Related Materials*, **1999**, 8, 160-165	3.5	6
34	Characterization of CVD Heavily B-Doped Diamond Thin Films for Multi Electrode Array Biosensors. *Physica Status Solidi (A) Applications and Materials Science*, **2017**, 214, 1700223	1.6	5
33	Fermi surface map of large-scale single-orientation graphene on SiO. *Journal of Physics Condensed Matter*, **2017**, 29, 475001	1.8	5
32	Graphene from fingerprints: exhausting the performance of liquid precursor deposition. *Langmuir*, **2014**, 30, 6114-9	4	5
31	Electron beam-induced current imaging of chemical vapor-deposited diamond films. *Diamond and Related Materials*, **1997**, 6, 95-98	3.5	5
30	Growth and defects of diamond facets under negative biasing conditions in a microwave plasma CVD process. *Diamond and Related Materials*, **1997**, 6, 1010-1014	3.5	5
29	First diamond FET RF power measurement on diamond quasi-substrate		5
28	Formation of huge in-plane anisotropy of intrinsic stress by off-axis growth of diamond. *Applied Physics Letters*, **2016**, 109, 141907	3.4	5
27	Controlled thermodynamics for tunable electron doping of graphene on Ir(111). *Physical Review B*, **2016**, 94,	3.3	4
26	Mutual interaction of N, B, and O during heteroepitaxial diamond growth: Triggering the nitrogen induced growth acceleration. *Physica Status Solidi (A) Applications and Materials Science*, **2014**, 211, 2290-2295	1.6	4
25	Single Crystalline Metal Films as Substrates for Graphene Growth. *Annalen Der Physik*, **2017**, 529, 1700236	2.6	4
24	Single Crystal Diamond Growth on Iridium **2014**, 269-304		4
23	Thermal diffusivity of heteroepitaxial diamond films: Experimental setup and measurements. *Diamond and Related Materials*, **2010**, 19, 787-791	3.5	4
22	Double re-entrance of superconductivity in superconductor/ferromagnet bilayers. *Journal of Physics: Conference Series*, **2009**, 150, 052242	0.3	4
21	All optical read-out radiation dosimeter using CVD synthetic diamond. *Physica Status Solidi (A) Applications and Materials Science*, **2006**, 203, 3173-3178	1.6	4
20	Preparation and spectroscopic characterization of a thin polymer film in ultra high vacuum: 2,5-distyrylpyrazine. *Journal of Chemical Physics*, **1991**, 94, 3235-3241	3.9	4
19	Liftoff of single crystal diamond by epitaxial lateral overgrowth using SiO2 masks. *Diamond and Related Materials*, **2020**, 101, 107606	3.5	4
18	Increasing the wear resistance by interstitial alloying with boron via chemical vapor deposition. *Langmuir*, **2013**, 29, 4543-50	4	3

17	Performance of CVD diamond as an optically and thermally stimulated luminescence dosemeter. *Radiation Protection Dosimetry*, **2006**, 119, 226-9	0.9	3
16	Interaction of small diamond islands on iridium: A finite element simulation study. *Diamond and Related Materials*, **2007**, 16, 705-710	3.5	3
15	Afterglow, TL and IRSL in beta-irradiated HPHT type Ib synthetic diamond. *Physica Status Solidi (A) Applications and Materials Science*, **2006**, 203, 3167-3172	1.6	3
14	Joint density of states at extended defects in CVD diamond, observed via highly spatially resolved electron energy loss spectroscopy. *Physica Status Solidi A*, **2005**, 202, 2188-2193		3
13	Extinction and Recovery of Superconductivity by Interference in Superconductor/Ferromagnet Bilayers. *Nanoscience and Technology*, **2009**, 3-11	0.6	3
12	Detection of x rays by a surface acoustic delay line in contact with a diamond crystal. *Applied Physics Letters*, **2021**, 118, 133501	3.4	3
11	The first prototype diamond monochromator at the Institut Laue-Langevin. *Journal of Physics: Conference Series*, **2014**, 528, 012001	0.3	2
10	ZnO Nanostructures: Optical Resonators and Lasing. *Advances in Solid State Physics*, **2009**, 39-56		2
9	High Field Electrical Conductivity and Breakdown in Heteroepitaxial Diamond Films. *Materials Research Society Symposia Proceedings*, **1995**, 416, 337		1
8	Fe□i complex emission in ZnO. *Journal of Applied Physics*, **2021**, 129, 085701	2.5	1
7	Photoconductive gain in single crystal diamond detectors. *Journal of Applied Physics*, **2021**, 129, 124502	2.5	1
6	Epitaxial Growth of Graphene on Single-Crystal Cu(111) Wafers **2018**, 97-106		1
5	Study of the Growth of Thin Expitaxial CVD Diamond Films on Silicon. *Materials Science Forum*, **1996** , 228-231, 445-450	0.4	0
4	Polarization-sensitive reconstruction of transient local THz fields at dielectric interfaces. *Optica*, **2019**, 6, 1431	8.6	0
3	Bias Enhanced Nucleation and Growth of Diamond Films on Titanium Substrates. *Materials Science Forum*, **1998**, 287-288, 315-318	0.4	
2	AFM study on the non-monotonic texture evolution of heteroepitaxially nucleated diamond films. *Diamond and Related Materials*, **1996**, 5, 266-271	3.5	
1	Growth of Single Crystal Diamond Wafers for Future Device Applications **2021**, 583-631		